

CLAIMS

1. A chalcopyrite type solar cell (50) comprising a stack (14) including a first electrode (16) composed of a metal, a light absorption layer (18) formed on or above said first electrode (16), which is composed of a chalcopyrite type compound serving as a P-type semiconductor, and a second electrode (20) formed on or above said light absorption layer (18), which serves as an N-type semiconductor, wherein:

mica is contained in an insulative substrate (52) that retains said stack (14); and

a binder layer (56), which is composed of a nitrogen compound, is interposed between said insulative substrate (52) and said stack (14).

2. The chalcopyrite type solar cell (50) according to claim 1, wherein said binder layer (56) contains TiN or TaN, and said binder layer (56) has a thickness of 0.5 to 1 μm .

3. The chalcopyrite type solar cell (50) according to claim 1 or 2, wherein said insulative substrate (52) comprises a mica aggregate, which is sintered after mixing said mica and a resin.

4. The chalcopyrite type solar cell (50) according to claim 3, wherein a smoothing layer (54) containing one of

SiN and SiO₂ and having irregularities on an upper end surface thereof is provided between said insulative substrate (52) and said binder layer (56), and wherein said irregularities of said smoothing layer (54) are smaller than irregularities on an upper end surface of said insulative substrate (52).

5. The chalcopyrite type solar cell (50) according to any one of claims 1 to 4, wherein a buffer layer (22) and a semi-insulative layer (24) are interposed between said light absorption layer (18) and said second electrode (20).